WHAT IS CLAIMED IS:

1. A paprika plant, or its parts, the paprika plant being characterized by fruits having a total carotenoids content higher than 10 mg/g dry fruit weight and a branching pattern suitable for mechanical harvesting.

2. The paprika plant of claim 1, wherein said fruit of the paprika plant is characterized by a beta carotene content higher than 1.5 mg/g dry fruit weight.

3. The paprika plant of claim 1, wherein said branching pattern is characterized by a branching angle not exceeding 40 degrees from main stem and branch points which occurs at a height of least 30 cm above ground in mature plants.

4. The paprika plant of claim 1, further characterized by having an average height exceeding the average height of a *Capsicum annuum* cv. Lehava plant being of a similar age and grown under similar conditions.

5. The paprika plant of claim 1, further characterized by having a number of fruits per plant exceeding the number of fruits per plant of a *Capsicum annuum* cv. Lehava plant being of a similar age and grown under similar conditions.

6. The paprika plant of claim 1, further characterized by having a dry fruit yield exceeding the dry fruit yield of a *Capsicum annuum* cv. Lehava plant being of a similar age and grown under similar conditions.

7. The paprika plant of claim 1, wherein the paprika plant is *Capsicum annuum* cv. 1056, representative seed thereof having been deposited under ATCC Accession No: PTA-5147.

8. The paprika plant of claim 1, wherein the paprika plant is *Capsicum annuum* cv. 1057, representative seed thereof having been deposited under ATCC Accession No: PTA-5148.

9. A seed of the paprika plant of claim 1.

10. A tissue culture of regenerable cells of the paprika plant of claim 1.

11. The tissue culture of claim 10, wherein the tissue culture regenerates plants capable of expressing all the morphological and physiological characteristics of the paprika plant.

12. The tissue culture of claim 10, wherein the tissue culture is regenerated from cells or protoplasts of a tissue selected from the group consisting of seeds, leaves, stems, pollens, roots, root tips, anthers, ovules, petals, flowers, embryos, fibers and bolls.

13. The paprika plant of claim 1, wherein the paprika plant is further characterized at maturity by at least one trait selected from the group consisting of plant height exceeding 90 cm, an average fruit length of at least 11 cm, an average fruit width of at least 2.9 cm, an average fruit dry weight of at least 3.5 g, an average number of fruits per plant of at least 11.7 fruits and an average fruit dry weight yield of at least 0.65 kg per m^2.

14. The paprika plant of claim 13, wherein the paprika plant is further characterized at maturity by having brown seeds.

15. The paprika plant of claim 13, wherein the paprika plant is further characterized at maturity by having light yellow seeds.

16. A method of generating a paprika plant having high carotenoids content using plant breeding techniques which employ a paprika plant, or its parts, as a source of plant breeding material, the method comprising utilizing paprika plants *Capsicum annuum* cv. Lehava and *Capsicum annuum* line 4126 as a source of breeding material.

17. The method of claim 16, wherein the plant breeding techniques are selected from the group consisting of recurrent selection, backcrossing, pedigree breeding, restriction fragment length polymorphism enhanced selection, genetic marker enhanced selection, and transformation.

18. A system for developing a paprika plant having a high carotenoids content using plant breeding techniques, the system comprising paprika plants *Capsicum annuum* cv. Lehava and *Capsicum annuum* line 4126 or parts of said paprika plants as a source of the breeding material.

19. A method of generating a paprika plant using plant breeding techniques which employ a paprika plant, or its parts, as a source of plant breeding material, the method comprising utilizing paprika plant *Capsicum annuum* cv. 1056, (ATCC Accession No: PTA-5147) or *Capsicum annuum* cv. 1057 (ATCC Accession No: PTA-5148) as a source of breeding material.

20. The method of claim 19, wherein the plant breeding techniques are selected from the group consisting of recurrent selection, backcrossing, pedigree breeding, restriction fragment length polymorphism enhanced selection, genetic marker enhanced selection, and transformation.

21. A system for developing a paprika plant using plant breeding techniques, the system comprising paprika plant *Capsicum annuum* cv. 1056, (ATCC Accession No: PTA-5147) or *Capsicum annuum* cv. 1057 (ATCC Accession No: PTA-5148) as a source of breeding material.